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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,633	11/17/2005	Leo Gustaaf Marien	NL030641US1	4032

24737 7590 05/28/2009
PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

HANLEY, BRITT D

ART UNIT	PAPER NUMBER
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2889

MAIL DATE	DELIVERY MODE
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05/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/557,633	Applicant(s) MARIEN ET AL.	
	Examiner BRITT HANLEY	Art Unit 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 13-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

[01] Amendment filed on 03/18/2009 has been entered and noted by Examiner. Claim 12 is cancelled in the application, and claims 1-11 and 13-17 are pending. Claims 14-17 are newly added.

Claim Rejections - 35 USC § 103

[02] The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[03] The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

[04] Claims 1-2, 5-7, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reger *et al.* (USP 2175361).

[05] Regarding claim 1, Reger *et al.* disclose a high-pressure discharge lamp comprising: a discharge vessel (1) that encloses a discharge space with an ionizable filling (column 2, argon, mercury), and includes a first (6) and a second (7) mutually opposed neck-shaped portion through which a first and second current-supply conductor, respectively, extend to a pair of electrodes (2, 3) arranged in the discharge space, an outer envelope (20) in which the discharge vessel is arranged along a longitudinal axis (Figure 1), a lamp base (8) that includes a

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first and a second contact member connected to the first and second current supply conductors (Figure 1). Reger *et al.* do not explicitly appear to disclose wherein at least one of the lamp base, the first contact member, and the second contact member is configured to fail upon an occurrence of an incandescent mode of the lamp. However, Reger *et al.* disclose the same structure as the apparatus claim 1. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since the structure of claim 1 does not differ from the prior art, claim 1 is obvious over Reger *et al.*

[06] Regarding claim 2, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1, wherein the lamp base includes at least one of: a soft glass, a hard glass, and a ceramic material, and has a softening point at which the lamp base fractures under a thermal stress of the incandescent mode of the lamp (ceramic material, column 2). Reger *et al.* disclose the same structure as the apparatus claim 2. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since the structure of claim 2 does not differ from the prior art, claim 2 is obvious over Reger *et al.*

[07] Regarding claim 5, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1, wherein the lamp base is coupled to the outer envelope (column 2, lines 39-43) via a substantially gas-tight seal (hermetically sealed, column 2, lines 30-43).

[08] Regarding claim 6, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 5, wherein the first and the second contact member extend from the outer envelope (see 17 and 18, Figure 1).

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[09] Regarding claim 7, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1, wherein at least one of the lamp base and the outer envelope includes an exhaust tube (23) that facilitates evacuation of the outer envelope (Figure 1).

[10] Regarding claim 15, Reger *et al.* disclose a high pressure discharge lamp as claimed in claim 1.

[11] Reger *et al.* do not explicitly appear to disclose wherein at least one of the first contact member and the second contact member is configured to form a fuse that cracks under a thermal stress of the incandescent mode of the lamp. However, Reger *et al.* disclose the same structure as the apparatus claim 15. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since the structure of claim 15 does not differ from the prior art, claim 15 is obvious over Reger *et al.*

[12] Regarding claim 16, Reger *et al.* disclose a high pressure discharge lamp as claimed in claim 1.

[13] Reger *et al.* do not explicitly appear to disclose wherein at least one of the first contact member and the second contact member is configured to crack under a thermal stress of the incandescent mode of the lamp. However, Reger *et al.* disclose the same structure as the apparatus claim 16. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since the structure of claim 16 does not differ from the prior art, claim 16 is obvious over Reger *et al.*

[14] Claims 2, 3, 4, 8, 10, 11, 13-14, and 17 are rejected under 35 USC 103 (a) as being obvious over Reger *et al.* (US 6,054,810) in view of Bruggemann *et al.* (US 6,204,598 B1).

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[15] Regarding claim 2, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose a base made of soft glass which will fracture under the thermal stress of an arc discharge. In the same field of lamps, Bruggemann *et al.* teach a base made of soft glass (column 2, lines 0-18; column 4, lines 12-33) because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of an arc discharge.

[16] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the soft glass base of Bruggemann *et al.* because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33).

[17] Regarding claim 3, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1 containing a first and second contact member (3b & 3a, fig. 1). Reger *et al.* do not appear to explicitly disclose that that the first and the second contact member are made from an oxidized nickel-iron-chromium material.

[18] However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium material (column 5, lines 45-53) so as to enable high dimensional accuracy (column 1, lines 59-62).

[19] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium material can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62).

[20] Regarding claim 4, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1 containing a first and second contact member (3b & 3a, fig. 1). Reger *et al.* do not

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appear to explicitly disclose that that the first and the second contact member are made from a nickel-iron-chromium alloy.

[21] However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium alloy (column 5, lines 45-53).

[22] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium alloy can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62).

[23] Regarding claim 8, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose the exhaust tube in the lamp base is made from a metal or from a NiFeCr alloy.

[24] However, in the same field of lamps, Bruggemann *et al.* teach an exhaust tube (3, fig. 2) made from a nickel-iron alloy such as nickel-iron-chromium (column 4, lines 21-24; column 5, lines 45-53), both metals.

[25] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the exhaust tube of Bruggemann *et al.* in order to add filling gas or halides.

[26] Regarding claims 10 and 17, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose that the base comprises soft glass having a softening point such that the base deforms or cracks under a thermal stress of the incandescent mode of the lamp. However, in the same field of lamps, Bruggemann *et al.* teach a base made of soft glass (column 2, lines 0-18; column 4, lines 12-33) because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33). Since the combination

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of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of the incandescent mode of the lamp.

[27] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the soft glass base of Bruggemann *et al.* because soft glass is highly suitable for use with NiFeCr leads (column 4, lines 12-33).

[28] Regarding claim 11, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose at least one of the first contact member and the second contact member is configured to deform or crack under a thermal stress of the incandescent mode of the lamp. However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium material (column 5, lines 45-53).

[29] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium material can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the first contact member and the second contact member will deform or crack under a thermal stress of an arc discharge.

[30] Regarding claim 13, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose at least one of the first contact member and the second contact member is configured to form a fuse that deforms or cracks under a thermal stress of the incandescent mode of the lamp. However, in the same field of lamps, Bruggemann *et al.* teach a first and second contact member (22, fig. 2) made from an oxidized nickel-iron-chromium material (column 5, lines 45-53).

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[31] At the time of the invention, it would have been obvious to one of ordinary skill in the art, to modify the lamp of Reger *et al.* to include the first and second contact member of Bruggemann *et al.* because members made from a nickel-iron-chromium material can be present right from the start in the lamp base so as to enable high dimensional accuracy (column 1, lines 59-62). Since the combination of Reger *et al.* and Bruggemann *et al.* disclose the structure and materials of the instant claim, the base will deform or crack under a thermal stress of the incandescent mode of the lamp.

[32] Regarding claim 14, the combination of Reger *et al.* and Bruggemann *et al.* disclose a high-pressure discharge lamp as claimed in claim 7, wherein the exhaust tube includes a NiFeCr alloy (column 4, lines 21-24; column 5, lines 45-53, Bruggemann *et al.*). The motivation to combine is the same as in claim 8.

[33] Claim 9 is rejected under 35 USC 103 (a) as being obvious over Reger *et al.* (US 6,054,810) in view of Honda *et al.* (US 2003/0076041 A1).

[34] Regarding claim 9, Reger *et al.* disclose a high-pressure discharge lamp as claimed in claim 1. Reger *et al.* do not appear to explicitly disclose the ratio of the distance between the electrodes to the height of the high-pressure discharge lamp along the longitudinal axis lies in a range of 0.02 to 0.2.

[35] However, in the same field of lamps, Honda *et al.* teach a discharge vessel with an overall length of 23.1mm ([0168]) and an inter-electrode gap of 3.5mm ([0176]). Honda *et al.* do not disclose the overall length of the bulb, however, Honda *et al.* do teach a compact high-pressure discharge lamp ([0045]). Further, in order to fall within the claimed range, the overall length would have to be in the range of $17.5 \text{ mm} < \text{hdl} < 175 \text{ mm}$. Since the length of the discharge vessel itself exceeds the minimum length, the overall length of the bulb would have to be less than 175 mm. Since the general conditions of a the claim are disclosed, at the time of

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the invention, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the ratio of the distance between the electrodes to the height of the high-pressure discharge lamp along the longitudinal axis lies in a range of: 0.02 to 0.2 because optimization of workable ranges is considered within the skill of the art.

Response to Arguments

[36] Applicant's arguments filed 03/18/2009 have been fully considered but they are not persuasive.

[37] Applicant argues Reger et al. does not teach a high-pressure discharge lamp wherein at least one of the lamp base, the first contact member, and the second contact member is configured to fail upon an occurrence of an incandescent mode of the lamp. Examiner notes that according to the MPEP 2114, features of an apparatus may be recited either structurally or functionally, however, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Since the claims are not distinguished over the structure of the prior art, they are obvious in view of the prior art.

[38] Applicant argues that Notelteirs *et al.* is directed toward an incandescent lamp and not a high-pressure lamp and is therefor not combinable with Reger *et al.*. Examiner disagrees and notes that Notelteirs *et al.* was relied upon to show that the concept of using the supply conductors as fuses is already known in the prior art.

Conclusion

[39] Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

[40] A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

[41] Any inquiry concerning this communication or earlier communications from the examiner should be directed to Britt Hanley whose telephone number is (571) 270-3042. The examiner can normally be reached on Monday - Thursday, 6:30a-5:00p ET.

[42] If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on (571)272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

[43] Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Britt Hanley/ Examiner, Art Unit 2889	/Toan Ton/ Supervisory Patent Examiner Art Unit 2889
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